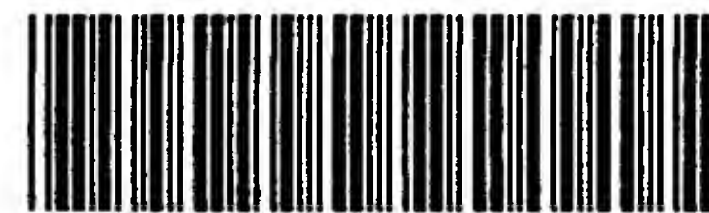


RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/807,096B
Source: IFW/6
Date Processed by STIC: 4/20/02

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 04/20/2007

PATENT APPLICATION: US/10/807,096B

TIME: 13:48:22

Input Set : A:\12-SQ Listing-16 April 2007.txt

Output Set: N:\CRF4\04202007\J807096B.raw

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3 <110> APPLICANT: Svendsen, Allan
4      Minning, Stefan
6 <120> TITLE OF INVENTION: Subtilases
8 <130> FILE REFERENCE: 10321.200-US
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/807,096B
C--> 10 <141> CURRENT FILING DATE: 2004-03-22
10 <160> NUMBER OF SEQ ID NOS: 8
12 <170> SOFTWARE: PatentIn version 3.4
14 <210> SEQ ID NO: 1
15 <211> LENGTH: 433
16 <212> TYPE: PRT
17 <213> ORGANISM: Bacillus sp. JP170
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25 Phe Gly Leu Tyr Gly Gln Gly Gln Ile Val Ala Val Ala Asp Thr Gly
26      20      25      30
29 Leu Asp Thr Gly Arg Asn Asp Ser Ser Met His Glu Ala Phe Arg Gly
30      35      40      45
33 Lys Ile Thr Ala Leu Tyr Ala Leu Gly Arg Thr Asn Asn Ala Asn Asp
34      50      55      60
37 Pro Asn Gly His Gly Thr His Val Ala Gly Ser Val Leu Gly Asn Ala
38 65      70      75      80
41 Thr Asn Lys Gly Met Ala Pro Gln Ala Asn Leu Val Phe Gln Ser Ile
42      85      90      95
45 Met Asp Ser Gly Gly Gly Leu Gly Gly Leu Pro Ala Asn Leu Gln Thr
46      100     105     110
49 Leu Phe Ser Gln Ala Tyr Ser Ala Gly Ala Arg Ile His Thr Asn Ser
50      115     120     125
53 Trp Gly Ala Pro Val Asn Gly Ala Tyr Thr Thr Asp Ser Arg Asn Val
54      130     135     140
57 Asp Asp Tyr Val Arg Lys Asn Asp Met Thr Ile Leu Phe Ala Ala Gly
58 145     150     155     160
61 Asn Glu Gly Pro Gly Ser Gly Thr Ile Ser Ala Pro Gly Thr Ala Lys
62      165     170     175
65 Asn Ala Ile Thr Val Gly Ala Thr Glu Asn Leu Arg Pro Ser Phe Gly
66      180     185     190
69 Ser Tyr Ala Asp Asn Ile Asn His Val Ala Gln Phe Ser Ser Arg Gly
70      195     200     205
73 Pro Thr Arg Asp Gly Arg Ile Lys Pro Asp Val Met Ala Pro Gly Thr
74      210     215     220
77 Tyr Ile Leu Ser Ala Arg Ser Ser Leu Ala Pro Asp Ser Ser Phe Trp
78 225     230     235     240

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DATE: 04/20/2007

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TIME: 13:48:22

Input Set : A:\12-SQ Listing-16 April 2007.txt

Output Set: N:\CRF4\04202007\J807096B.raw

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81 Ala Asn His Asp Ser Lys Tyr Ala Tyr Met Gly Gly Thr Ser Met Ala
82                245                250                255
85 Thr Pro Ile Val Ala Gly Asn Val Ala Gln Leu Arg Glu His Phe Val
86                260                265                270
89 Lys Asn Arg Gly Val Thr Pro Lys Pro Ser Leu Leu Lys Ala Ala Leu
90                275                280                285
93 Ile Ala Gly Ala Ala Asp Val Gly Leu Gly Phe Pro Asn Gly Asn Gln
94                290                295                300
97 Gly Trp Gly Arg Val Thr Leu Asp Lys Ser Leu Asn Val Ala Phe Val
98 305                310                315                320
101 Asn Glu Thr Ser Pro Leu Ser Thr Ser Gln Lys Ala Thr Tyr Ser Phe
102                325                330                335
105 Thr Ala Gln Ala Gly Lys Pro Leu Lys Ile Ser Leu Val Trp Ser Asp
106                340                345                350
109 Ala Pro Gly Ser Thr Thr Ala Ser Leu Thr Leu Val Asn Asp Leu Asp
110                355                360                365
113 Leu Val Ile Thr Ala Pro Asn Gly Thr Lys Tyr Val Gly Asn Asp Phe
114                370                375                380
117 Thr Ala Pro Tyr Asp Asn Asn Trp Asp Gly Arg Asn Asn Val Glu Asn
118 385                390                395                400
121 Val Phe Ile Asn Ala Pro Gln Ser Gly Thr Tyr Thr Val Glu Val Gln
122                405                410                415
125 Ala Tyr Asn Val Pro Val Ser Pro Gln Thr Phe Ser Leu Ala Ile Val
126                420                425                430
129 His
133 <210> SEQ ID NO: 2
134 <211> LENGTH: 433
135 <212> TYPE: PRT
136 <213> ORGANISM: Bacillus sp. Y
138 <400> SEQUENCE: 2
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141 1                5                10                15
144 Tyr Gly Leu Tyr Gly Gln Gly Gln Leu Val Ala Val Ala Asp Thr Gly
145                20                25                30
148 Leu Asp Thr Gly Arg Asn Asp Ser Ser Met His Glu Ala Phe Arg Gly
149                35                40                45
152 Lys Ile Thr Ala Leu Tyr Ala Leu Gly Arg Thr Asn Asn Ala Ser Asp
153                50                55                60
156 Pro Asn Gly His Gly Thr His Val Ala Gly Ser Val Leu Gly Asn Ala
157 65                70                75                80
160 Leu Asn Lys Gly Met Ala Pro Gln Ala Asn Leu Val Phe Gln Ser Ile
161                85                90                95
164 Met Asp Ser Ser Gly Gly Leu Gly Gly Leu Pro Ser Asn Leu Asn Thr
165                100               105               110
168 Leu Phe Ser Gln Ala Trp Asn Ala Gly Ala Arg Ile His Thr Asn Ser
169                115               120               125
172 Trp Gly Ala Pro Val Asn Gly Ala Tyr Thr Ala Asn Ser Arg Gln Val
173                130               135               140
176 Asp Glu Tyr Val Arg Asn Asn Asp Met Thr Val Leu Phe Ala Ala Gly

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DATE: 04/20/2007

PATENT APPLICATION: US/10/807,096B

TIME: 13:48:22

Input Set : A:\12-SQ Listing-16 April 2007.txt

Output Set: N:\CRF4\04202007\J807096B.raw

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177 145          150          155          160
180 Asn Glu Gly Pro Asn Ser Gly Thr Ile Ser Ala Pro Gly Thr Ala Lys
181          165          170          175
184 Asn Ala Ile Thr Val Gly Ala Thr Glu Asn Tyr Arg Pro Ser Phe Gly
185          180          185          190
188 Ser Ile Ala Asp Asn Pro Asn His Ile Ala Gln Phe Ser Ser Arg Gly
189          195          200          205
192 Ala Thr Arg Asp Gly Arg Ile Lys Pro Asp Val Thr Ala Pro Gly Thr
193          210          215          220
196 Phe Ile Leu Ser Ala Arg Ser Ser Leu Ala Pro Asp Ser Ser Phe Trp
197 225          230          235          240
200 Ala Asn Tyr Asn Ser Lys Tyr Ala Tyr Met Gly Gly Thr Ser Met Ala
201          245          250          255
204 Thr Pro Ile Val Ala Gly Asn Val Ala Gln Leu Arg Glu His Phe Ile
205          260          265          270
208 Lys Asn Arg Gly Ile Thr Pro Lys Pro Ser Leu Ile Lys Ala Ala Leu
209          275          280          285
212 Ile Ala Gly Ala Thr Asp Val Gly Leu Gly Tyr Pro Ser Gly Asp Gln
213          290          295          300
216 Gly Trp Gly Arg Val Thr Leu Asp Lys Ser Leu Asn Val Ala Tyr Val
217 305          310          315          320
220 Asn Glu Ala Thr Ala Leu Ala Thr Gly Gln Lys Ala Thr Tyr Ser Phe
221          325          330          335
224 Gln Ala Gln Ala Gly Lys Pro Leu Lys Ile Ser Leu Val Trp Thr Asp
225          340          345          350
228 Ala Pro Gly Ser Thr Thr Ala Ser Tyr Thr Leu Val Asn Asp Leu Asp
229          355          360          365
232 Leu Val Ile Thr Ala Pro Asn Gly Gln Lys Tyr Val Gly Asn Asp Phe
233          370          375          380
236 Ser Tyr Pro Tyr Asp Asn Asn Trp Asp Gly Arg Asn Asn Val Glu Asn
237 385          390          395          400
240 Val Phe Ile Asn Ala Pro Gln Ser Gly Thr Tyr Ile Ile Glu Val Gln
241          405          410          415
244 Ala Tyr Asn Val Pro Ser Gly Pro Gln Arg Phe Ser Leu Ala Ile Val
245          420          425          430
248 His
252 <210> SEQ ID NO: 3
253 <211> LENGTH: 433
254 <212> TYPE: PRT
255 <213> ORGANISM: Bacillus sp. SD-521
257 <400> SEQUENCE: 3
259 Asn Asp Val Ala Arg Gly Ile Val Lys Ala Asp Val Ala Gln Asn Asn
260 1          5          10          15
263 Tyr Gly Leu Tyr Gly Gln Gly Gln Val Val Ala Val Ala Asp Thr Gly
264          20          25          30
267 Leu Asp Thr Gly Arg Asn Asp Ser Ser Met His Glu Ala Phe Arg Gly
268          35          40          45
271 Lys Ile Thr Ala Leu Tyr Ala Leu Gly Arg Thr Asn Asn Ala Asn Asp
272          50          55          60

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DATE: 04/20/2007

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TIME: 13:48:22

Input Set : A:\12-SQ Listing-16 April 2007.txt

Output Set: N:\CRF4\04202007\J807096B.raw

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275 Pro Asn Gly His Gly Thr His Val Ala Gly Ser Val Leu Gly Asn Ala
276 65              70              75              80
279 Leu Asn Lys Gly Met Ala Pro Gln Ala Asn Leu Val Phe Gln Ser Ile
280              85              90              95
283 Met Asp Ser Ser Gly Gly Leu Gly Gly Leu Pro Ser Asn Leu Asn Thr
284              100             105             110
287 Leu Phe Ser Gln Ala Trp Asn Ala Gly Ala Arg Ile His Thr Asn Ser
288              115             120             125
291 Trp Gly Ala Pro Val Asn Gly Ala Tyr Thr Ala Asn Ser Arg Gln Val
292              130             135             140
295 Asp Glu Tyr Val Arg Asn Asn Asp Met Thr Val Leu Phe Ala Ala Gly
296 145              150             155             160
299 Asn Glu Gly Pro Asn Ser Gly Thr Ile Ser Ala Pro Gly Thr Ala Lys
300              165             170             175
303 Asn Ala Ile Thr Val Gly Ala Thr Glu Asn Tyr Arg Pro Ser Phe Gly
304              180             185             190
307 Ser Leu Ala Asp Asn Pro Asn His Ile Ala Gln Phe Ser Ser Arg Gly
308              195             200             205
311 Ala Thr Arg Asp Gly Arg Ile Lys Pro Asp Val Thr Ala Pro Gly Thr
312              210             215             220
315 Phe Ile Leu Ser Ala Arg Ser Ser Leu Ala Pro Asp Ser Ser Phe Trp
316 225              230             235             240
319 Ala Asn Tyr Asn Ser Lys Tyr Ala Tyr Met Gly Gly Thr Ser Met Ala
320              245             250             255
323 Thr Pro Ile Val Ala Gly Asn Val Ala Gln Leu Arg Glu His Phe Ile
324              260             265             270
327 Lys Asn Arg Gly Ile Thr Pro Lys Pro Ser Leu Ile Lys Ala Ala Leu
328              275             280             285
331 Ile Ala Gly Ala Thr Asp Val Gly Leu Gly Tyr Pro Ser Gly Asp Gln
332              290             295             300
335 Gly Trp Gly Arg Val Thr Leu Asp Lys Ser Leu Asn Val Ala Tyr Val
336 305              310             315             320
339 Asn Glu Ala Thr Ala Leu Ala Thr Gly Gln Lys Ala Thr Tyr Ser Phe
340              325             330             335
343 Gln Ala Gln Ala Gly Lys Pro Leu Lys Ile Ser Leu Val Trp Thr Asp
344              340             345             350
347 Ala Pro Gly Ser Thr Thr Ala Ser Tyr Thr Leu Val Asn Asp Leu Asp
348              355             360             365
351 Leu Val Ile Thr Ala Pro Asn Gly Gln Lys Tyr Val Gly Asn Asp Phe
352              370             375             380
355 Ser Tyr Pro Tyr Asp Asn Asn Trp Asp Gly Arg Asn Asn Val Glu Asn
356 385              390             395             400
359 Val Phe Ile Asn Ala Pro Gln Ser Gly Thr Tyr Thr Ile Glu Val Gln
360              405             410             415
363 Ala Tyr Asn Val Pro Ser Gly Pro Gln Arg Phe Ser Leu Ala Ile Val
364              420             425             430
367 His
371 <210> SEQ ID NO: 4
372 <211> LENGTH: 275

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RAW SEQUENCE LISTING

DATE: 04/20/2007

PATENT APPLICATION: US/10/807,096B

TIME: 13:48:22

Input Set : A:\12-SQ Listing-16 April 2007.txt

Output Set: N:\CRF4\04202007\J807096B.raw

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373 <212> TYPE: PRT
374 <213> ORGANISM: Bacillus amyloliquefaciens
376 <400> SEQUENCE: 4
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382 His Ser Gln Gly Tyr Thr Gly Ser Asn Val Lys Val Ala Val Ile Asp
383 20 25 30
386 Ser Gly Ile Asp Ser Ser His Pro Asp Leu Lys Val Ala Gly Gly Ala
387 35 40 45
390 Ser Met Val Pro Ser Glu Thr Asn Pro Phe Gln Asp Asn Asn Ser His
391 50 55 60
394 Gly Thr His Val Ala Gly Thr Val Ala Ala Leu Asn Asn Ser Ile Gly
395 65 70 75 80
398 Val Leu Gly Val Ala Pro Ser Ala Ser Leu Tyr Ala Val Lys Val Leu
399 85 90 95
402 Gly Ala Asp Gly Ser Gly Gln Tyr Ser Trp Ile Ile Asn Gly Ile Glu
403 100 105 110
406 Trp Ala Ile Ala Asn Asn Met Asp Val Ile Asn Met Ser Leu Gly Gly
407 115 120 125
410 Pro Ser Gly Ser Ala Ala Leu Lys Ala Ala Val Asp Lys Ala Val Ala
411 130 135 140
414 Ser Gly Val Val Val Val Ala Ala Ala Gly Asn Glu Gly Thr Ser Gly
415 145 150 155 160
418 Ser Ser Ser Thr Val Gly Tyr Pro Gly Lys Tyr Pro Ser Val Ile Ala
419 165 170 175
422 Val Gly Ala Val Asp Ser Ser Asn Gln Arg Ala Ser Phe Ser Ser Val
423 180 185 190
426 Gly Pro Glu Leu Asp Val Met Ala Pro Gly Val Ser Ile Gln Ser Thr
427 195 200 205
430 Leu Pro Gly Asn Lys Tyr Gly Ala Tyr Asn Gly Thr Ser Met Ala Ser
431 210 215 220
434 Pro His Val Ala Gly Ala Ala Ala Leu Ile Leu Ser Lys His Pro Asn
435 225 230 235 240
438 Trp Thr Asn Thr Gln Val Arg Ser Ser Leu Glu Asn Thr Thr Thr Lys
439 245 250 255
442 Leu Gly Asp Ser Phe Tyr Tyr Gly Lys Gly Leu Ile Asn Val Gln Ala
443 260 265 270
446 Ala Ala Gln
447 275
450 <210> SEQ ID NO: 5
451 <211> LENGTH: 7
452 <212> TYPE: PRT
453 <213> ORGANISM: Artificial Sequence
455 <220> FEATURE:
456 <223> OTHER INFORMATION: Synthetic
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460 Leu Asn Asn Ser Ile Gly Val
461 1 5
464 <210> SEQ ID NO: 6

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VERIFICATION SUMMARY

DATE: 04/20/2007

PATENT APPLICATION: US/10/807,096B

TIME: 13:48:23

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Output Set: N:\CRF4\04202007\J807096B.raw

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L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date